



★ DEEP ROCK TUNNEL CONNECTOR

The Deep Rock Tunnel Connector project—Indianapolis' largest combined sewer overflow project—will improve the quality of life in Indianapolis neighborhoods by reducing the amount and frequency of raw sewage overflows years ahead of schedule.

The Deep Rock Tunnel Connector, formerly known as the Interplant Connect project, is part of Indianapolis' federally-mandated plan to curb the overflow of raw sewage into our rivers and streams. The \$1.7 billion, 20-year Long Term Control Plan is required under a consent decree with the Environmental Protection Agency (EPA) and the Indiana Department of Environmental Management (IDEM).

Currently, when as little as a quarter inch of rain falls, combined sewers reach capacity, and raw sewage overflows into local rivers and streams. The Deep Rock Tunnel Connector will address three of those Combined Sewer Overflow (CSO) locations: CSO 008 near Harding Street and the White River; CSO 117 near Southern Avenue and the White River; and CSO 118 near West Street and White River Parkway East Drive.

The original Interplant Connect project would have only addressed CSO 117. Now, in addition to capturing the sewage from CSO 117, the Deep Rock Tunnel Connector will also capture CSOs 008 and 118, two of the city's largest overflow points, years ahead of the original consent decree schedule. An additional 1 billion gallons of raw sewage will be captured and treated through 2021 when compared to the original project design.

The \$257 million (2008 estimate) Deep Rock Tunnel Connector project is funded through sanitary sewer user fees and is part of the sewer rate increase approved by the City-County Council. Construction is expected to begin in 2011, and the project will be complete and in operation by May 31, 2016.

★ DEEP ROCK TUNNEL CONNECTOR CONCEPT

The new Deep Rock Tunnel Connector will be the first phase of the city's overall tunnel storage and transport system. From the Deep Rock Tunnel Connector, additional storage tunnels will be extended along White River, Fall Creek, Pleasant Run and Pogues Run to create a collective, underground storage facility for sewage.



The completed tunnel will be 18 feet in diameter and stretch over six miles underground.

All sewage transported and stored underground in the tunnel system is sewage that otherwise could have gone directly into our waterways. The tunnel system is a component of the federally-mandated plan to reduce raw sewage overflows.

Utilizing the new “storage and transport concept” of the Deep Rock Tunnel Connector, raw sewage captured at

PROJECT DETAILS

PROJECT COST: \$257 million (2008 estimate)

DESIGN ENGINEER: AECOM

CONSTRUCTION START DATE: May 2011

PROJECT COMPLETION DATE: May 2016

STATUS: Design

ANTICIPATED PROJECT BENEFITS:

- Capture and treat an additional 1 billion gallons of raw sewage through 2021 when compared to the original design
- Improve management of flows between the city's two treatment plants
- Minimize inconveniences to local residents

SUSTAINABLE AND GREEN CONCEPTS:

- Eliminate one of two previously planned pumping stations, saving the city millions of dollars in upfront capital costs and long-term operating costs
- Improve energy efficiency of operations for long-term reduced environmental impacts
- Beneficially reuse limestone bedrock removed during construction of the tunnel
- Limit utility disruptions, resulting in further savings

Project schedules and costs are subject to change.

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CSOs 008, 117 and 118 will be stored in the tunnel and then transported to the wastewater treatment plant. The enhanced tunnel will have the capacity to store over 54 million gallons of raw sewage during large storm events, and when the project is completed, sewage overflows into Indianapolis waterways will be significantly reduced.

DPW has been working to incorporate sustainable concepts into the design of the Deep Rock Tunnel Connector as well. Most notably, one of the project's two previously planned pumping stations will now be eliminated, resulting in energy savings since the system will require less energy to run and operations can be simplified. This savings will be applied to future projects associated with the city's consent decree. The project's limited disruptions to utilities will also result in further savings. In addition, DPW will emphasize the beneficial reuse of the limestone bedrock, which will be removed during construction of the tunnel.

NEIGHBORHOOD IMPACTS

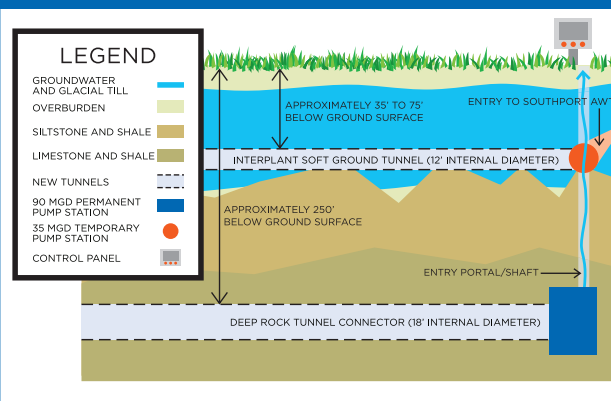
More than six miles long, the Deep Rock Tunnel Connector will extend from the Southport Advanced Wastewater Treatment Plant located at Southport Road and Tibbs Avenue, to north of the Belmont Advanced Wastewater Treatment Plant near the White River and Harding Street.

In the initial concept, the project would have been constructed in soft ground under high groundwater conditions at depths of 35 to 75 feet below ground surface with an internal diameter of 12 feet. Now, the Deep Rock Tunnel Connector will be constructed more than 250 feet below ground surface in bedrock, with an internal diameter of 18 feet.

Contaminated groundwater areas discovered along the initial project route will now be avoided, which will ease environmental concerns. Since the Deep Rock Tunnel Connector will be constructed below groundwater levels, impacts to area wells, gas lines, electrical lines, existing sewers and other utilities will be significantly reduced. Traffic disruptions and property easements needed to construct the project will also be minimized.

If there are encroachments in the right of way of construction, property owners will be notified prior to the removal of encroachments. It is the responsibility of the homeowner to make DPW aware of any encroachments not easily visible to the eye, such as invisible fences or sprinkler systems.

DEEP ROCK TUNNEL CONNECTOR: CROSS SECTION COMPARISON



The Interplant Connect tunnel would have been constructed 35 to 75 feet below ground surface under high groundwater conditions.

The Deep Rock Tunnel Connector will be constructed approximately 250 feet below ground surface and project-related groundwater issues will be avoided.

